REMARKS

Claims 1-8, 10-12, 14, 16 and 19 remain pending. Claims 9 and 17-18 were previously canceled without prejudice. Claims 13 and 15 are hereby canceled without prejudice. Claims 1, 3, 7, 11, 12, 16 and 19 are hereby amended. No new matter is being added.

Claim Rejection--35 U.S.C. 102

Claims 1-8, 10-11, 16 and 19 stand rejected under Section 102(e) as being anticipated by US 2007/0110078 to De Silva et al (hereinafter De Silva). Applicant respectfully traverses this rejection in relation to the claims as they now stand.

Amended claim 1 recites as follows.

1. A method of processing a packet sent to a provider network, the method comprising:
   receiving the packet via a first user port at a first edge switch of the network, wherein the first user port is an input port of the first edge switch;
   determining forwarding and routing by the first edge switch based on a user VLAN identifier (VID) of a user VLAN tag for the packet;
   creating a tunnel from the first user port at the first edge switch to a second user port at a second edge switch using double VLAN tagging by inserting a provider VLAN tag, including a provider VID, into the packet at a first provider port at the first edge switch prior to transmission of the packet via the first provider port and stripping the provider VLAN tag from the packet after the packet is received by a second provider port at the second edge switch, wherein the first provider port is an output port of the first edge switch, wherein the second provider port is an input port of the second edge switch, and wherein the second user port is an output port of the second edge switch; and
   utilizing the user VLAN tag by a middle switch to determine a class of service for the packet so as to provide a user-expected service level in relation to traffic flowing through said tunnel.

(Emphasis added.)

As shown above, claim 1 recites "**utilizing the user VLAN tag by a middle switch to determine a class of service for the packet so as to provide a user-expected service level in relation to traffic flowing through said tunnel.**" (Emphasis added.) The added claim language regarding utilzing the user VLAN tag finds support in the original specification. For example, page 6, line 32 to page 7, line 1 recites, "In addition, the middle switch(es) may look at and utilize the user tag (for example, for COS determination or other uses) ...."

Applicant respectfully submits that the cited references do not teach or disclose the above-referenced claim limitation. Specifically, the cited references do not teach or disclose "**utilizing the user VLAN tag by a middle switch to determine a class of service for the packet so as to provide a user-expected service level in relation to traffic flowing through said tunnel**". (Emphasis added.)

In regard to De Silva, paragraph 0023, lines 13-16 explicitly states, "The other **intermediate network devices within the provider network utilize the frame's provider VLAN designation and provider COS value** in making forwarding decisions." (Emphasis added.) Furthermore, paragraph 0025 recites, "The bridge may also include or have access to certain resources or services, such as priority queues, filter settings, queue selection strategies, congestion control algorithms, high-speed links, etc., for use in forwarding network messages. **A particular resource(s) may be selected for use in forwarding the frame based on the frame's provider CoS value.**" (Emphasis added.) Thus, it is shown that De Silva *expressly teaches against* the aforementioned element of amended claim 1.

Therefore, for at least the above-discussed reasons, applicant respectfully submits that amended claim 1 overcomes this rejection and is patentably distinguished over the cited art.

Claims 2-8 and 10 depend from claim 1. Hence, applicant respectfully submits that claims 2-8 and 10 also overcome their rejections for at least the same reasons discussed above in relation to claim 1.

Amended claim 11 is an apparatus claim which recites, **"forwarding logic** for determining forwarding and routing based on a user VLAN identifier (VID) of a user VLAN tag for the packet, **including determination of a class of service based on the user VLAN tag**." (Emphasis added.)

In contrast, De Silva, paragraph 0023, lines 13-16 explicitly states, "The other **intermediate network devices within the provider network utilize the frame's provider VLAN designation and provider COS value** in making forwarding decisions." (Emphasis added.) Furthermore, paragraph 0025 recites, "The bridge may also include or have access to certain resources or services, such as priority queues, filter settings, queue selection strategies, congestion control algorithms, high-speed links, etc., for use in forwarding network messages. **A particular resource(s) may be selected for use in forwarding the frame based on the frame's provider CoS value**." (Emphasis added.) Thus, it is shown that De Silva *expressly teaches against* the aforementioned element of amended claim 11.

Therefore, for at least the above-discussed reasons, applicant respectfully submits that amended claim 11 overcomes this rejection and is patentably distinguished over the cited art.

Amended claim 16 recites, "**a user-expected service level is provided in relation to traffic flowing through the tunnel by utilization of the user VLAN tag by a middle switch to determine a class of service for the packet**". (Emphasis added.)

In contrast, De Silva, paragraph 0023, lines 13-16 explicitly states, "The other **intermediate network devices within the provider network utilize the frame's provider VLAN designation and provider COS value** in making forwarding decisions." (Emphasis added.) Furthermore, paragraph 0025 recites, "The bridge may also include or have access to certain resources or services, such as priority queues, filter settings, queue selection strategies, congestion control algorithms, high-speed links, etc., for use in forwarding network messages. **A particular resource(s) may be selected for use in forwarding the frame based on the frame's provider CoS value**." (Emphasis added.) Thus, it is shown that De Silva *expressly teaches against* the aforementioned element of amended claim 16.

Therefore, for at least the above-discussed reasons, applicant respectfully submits that amended claim 16 overcomes this rejection and is patentably distinguished over the cited art.

Amended claim 19 recites, "means for determining forwarding and routing by the edge switch based on a user VLAN identifier (VID) of a user VLAN tag for the packet and for **determining a class of service based on the user VLAN tag**". (Emphasis added.)

In contrast, De Silva, paragraph 0023, lines 13-16 explicitly states, "The other **intermediate network devices within the provider network utilize the frame's provider VLAN designation and provider COS value** in making forwarding decisions." (Emphasis added.) Furthermore, paragraph 0025 recites, "The bridge may also include or have access to certain resources or services, such as priority queues, filter settings, queue selection strategies, congestion control algorithms, high-speed links, etc., for use in forwarding network messages. **A particular resource(s) may be selected for use in forwarding the frame based on the frame's provider CoS value**." (Emphasis added.) Thus, it is shown that De Silva *expressly teaches against* the aforementioned element of amended claim 19.

Therefore, for at least the above-discussed reasons, applicant respectfully submits that amended claim 19 overcomes this rejection and is patentably distinguished over the cited art.

Claim Rejection--35 U.S.C. 103

Claims 12 and 14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over De in view of US 6,788,681 to Hurren et al (hereinafter Hurren). Applicant respectfully traverses this rejection in relation to the claims as they now stand.

Amended claim 12 recites that" **a service level is provided in relation to traffic flowing through said tunnel which provides a security action** of dropping the packet or forwarding the packet to management software" and that "**the security action is determined based on the user VLAN tag**."

In contrast, De Silva, paragraph 0023, lines 13-16 explicitly states, "The other **intermediate network devices within the provider network utilize the frame's provider VLAN designation and provider COS value** in making forwarding decisions." (Emphasis added.) Furthermore, paragraph 0025 recites, "The bridge may also include or have access to certain resources or services, such as priority queues, filter settings, queue selection strategies, congestion control algorithms, high-speed links, etc., for use in forwarding network messages. **A particular resource(s) may be selected for use in forwarding the frame based on the frame's provider CoS value**." (Emphasis added.) Thus, it is shown that De Silva *expressly teaches against* the aforementioned element of amended claim 12.

The citation to Hurren does not cure the above-discussed deficiency in De Silva. Hurren is merely cited in regard to discarding frames based on information in the priority field.

Therefore, for at least the above-discussed reasons, applicant respectfully submits that amended claim 12 overcomes this rejection and is patentably distinguished over the cited art.

Claim 14 depends from claim 12. Hence, applicant respectfully submits that claim 14 also overcome their rejections for at least the same reasons discussed above in relation to claim 12.

Conclusion

For the above-discussed reasons, applicant respectfully submits that the pending claims now overcome all the rejections in the latest office action. Favorable action is respectfully requested.

The Examiner is also invited to call the below-referenced attorney to discuss this case.

Respectfully Submitted,

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